AMENDMENTS TO THE CLAIMS

1. (Currently amended) A radar apparatus ~~or like~~ for forming detection ~~image~~ data from real sweep data successively formed based on a detection signal received by an antenna, and interpolated sweep data that is interpolated between adjacent pieces of the real sweep data in an azimuth direction, the device comprising:

interpolated sweep azimuth calculator for calculating a sweep azimuth of an interpolated sweep formed between a current real sweep and the previous real sweep based on a sweep azimuth of the current real sweep and a sweep azimuth of the previous real sweep, and

sweep data former for calculating interpolated sweep data between current real sweep data and the previous real sweep data based on the current real sweep data and the previous real sweep data,

wherein sweep data is formed based on the calculated interpolated sweep data and the real sweep data.

2. (Currently amended) The radar apparatus ~~or like~~ according to claim 1, wherein the interpolated sweep data is composed of a linearly interpolated value between the previous real sweep data and the current real sweep data present on the same position in a sweep distance direction.

3. (Currently amended) The radar apparatus ~~or like~~ according to claim 1 or 2, wherein the sweep data former comprises:

corrected real sweep data former for, when, among a plurality of pieces of data of the real

sweep data arranged in a distance direction, solitary data having a value larger than or equal to a

predetermined threshold value is present in a predetermined range, converting the solitary data

into corrected real sweep data, and

corrected interpolated sweep data calculator for calculating corrected interpolated sweep

data based on the corrected real sweep data formed by the corrected real sweep data former, and

forms the sweep data based on the corrected real sweep data and the corrected interpolated

sweep data.

4. (Currently amended) A radar apparatus ~~or like~~ for forming detection ~~image~~ data from real

sweep data successively formed based on a detection signal received by an antenna, and

interpolated sweep data that is interpolated between adjacent pieces of the real sweep data in an

azimuth direction, the device comprising:

corrected real sweep data former for, when, among a plurality of pieces of data of the real

sweep data arranged in a distance direction, solitary data having a value larger than or equal to a

predetermined threshold value is present in a predetermined range, converting the solitary data

into corrected real sweep data, and

corrected interpolated sweep data calculator for calculating corrected interpolated sweep

data based on the corrected real sweep data formed by the corrected real sweep data former,

wherein sweep data is formed based on the corrected real sweep data and the corrected

interpolated sweep data.

MKM/NYM/hmw

5. (Currently amended) A sweep data forming method for a radar apparatus ~~or like~~ which forms detection ~~image~~ data from real sweep data successively formed based on a detection signal received by an antenna, and interpolated sweep data that is interpolated between adjacent pieces of the real sweep data in an azimuth direction, the method comprising the steps of:

calculating a sweep azimuth of an interpolated sweep formed between a current real sweep and the previous real sweep based on a sweep azimuth of the current real sweep and a sweep azimuth of the previous real sweep,

calculating interpolated sweep data between current real sweep data and the previous real sweep data based on the current real sweep data and the previous real sweep data, and

forming the sweep data based on the calculated interpolated sweep data, the real sweep data, and the sweep azimuth.

6. (Currently amended) A sweep data forming method for a radar apparatus ~~or like~~ which forms detection ~~image~~ data from real sweep data successively formed based on a detection signal received by an antenna, and interpolated sweep data that is interpolated between adjacent pieces of the real sweep data in an azimuth direction, the method comprising the steps of, when, among a plurality of pieces of data of the real sweep data arranged in a distance direction, solitary data having a value larger than or equal to a predetermined threshold value is present in a predetermined ~~range,~~range:

converting the solitary data into corrected real sweep data, calculating corrected interpolated sweep data based on the corrected real sweep data, and

MKM/NYM/hmw

forming the sweep data based on the corrected real sweep data and the corrected

interpolated sweep data.

MKM/NYM/hmw